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(Previously ALLO 4180 or APTI 1013656)

PATENT APPLICATION
NO. 09/670,630

REMARKS

This Amendment is in response to the Office Action mailed February 8, 2005. The Office Action objected to claim 7; rejected claims 11 and 12 under 35 U.S.C 112; rejected claims 1-3, 7-13 and 15-20 under 35 U.S.C. 103 (a) over Proctor (US Patent No. 5,872,645) in view of Ohshima (US Patent No. 5,483,368); and rejected claims 4-6 under 35 U.S.C. 103 (a) over Proctor (US Patent No. 5,872,645) in view of Ohshima (US Patent No. 5,483,368) and Panahi (US Patent No. 6,272,130).

Claims 1-13, and 15-20 are pending in the application. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Objection to Claim 7 under 35 U.S.C. § 112

Applicant has now amended claim 7 from reading "optical transmission line is fiber optic line" to read "optical transmission line is fiber optic line." Applicant thanks the examiner for noting this typographical error, which now has been corrected.

Rejection of Claims 11 and 12 under 35 U.S.C. § 112

Claims 11 and 12 were rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 was cited in the Office Action for the limitation "the improvement" in line 5. Applicant, however, would like to respectively point out that the Office Action has cited claim 2 in error, and should have instead cited claim 11. Accordingly, claim 11 has now been amended from reading "the improvement" to read "an improvement" and,

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therefore, should no longer be objected to.

Rejection of Claims 1-3, 7-13 and 15-20 under 35 U.S.C. § 103(a) over Proctor in view of Ohshima

Claims 1-3, 7-13 and 15-20 were rejected under 35 U.S.C. 103 (a) over Proctor (US Patent No. 5,872,645) in view of Ohshima (US Patent No. 5,483,368). Applicant respectfully requests that the rejection of these claims be withdrawn. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

a. There is no suggestion or motivation in either of the references to modify or combine these two references:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d (BNA) 1430 (Fed. Cir. 1990).

To establish a *prima facie* case for rejection under 35 U.S.C. § 103(a), there must be a showing of some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *E.g., SIBIA Neurosciences, Inc. v. Cadus*

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Pharm. Corp., 225 F.3d 1349, 1356 (Fed. Cir. 2000). Nevertheless, the U.S. Court of Appeals for the Federal Circuit has held that "section 103 requires some suggestion or motivation, before the invention itself, to make the new combination. See *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998)." *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, Case No. 04-1493 (Fed. Cir. June 9, 2005), Slip Op. at 9 (emphasis added). However, the Office Action has not provided such a showing - there is no specific reference to any line within Ohshima - or elsewhere - where such motivation or suggestion is to be found. Instead, the Office Action merely concludes that "it would have been obvious to one having skill in the art at the time of the invention was made to incorporate the first plurality of optical network units . . . as taught by Ohshima in the system of Proctor." Nevertheless, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d (BNA) 1430 (Fed. Cir. 1990).

Repeatedly, the U.S. Court of Appeals for the Federal Circuit has held that "in making the assessment of differences between the prior art and the claimed subject matter, section 103 specifically requires consideration of the claimed invention 'as a whole.' Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983) (noting that 'virtually all [inventions] are combinations of old elements'). The 'as a whole' instruction in title 35 [Section 103] prevents evaluation of the invention part by part. [citing *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275 (Fed. Cir. 2004)] Without this important requirement, an obviousness assessment might successfully break an invention

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into its component parts, then find a prior art reference corresponding to each component. Id. This line of reasoning would import hindsight into the obviousness determination by using the invention as a roadmap to find its prior art components. Further, this improper method would discount the value of combining various existing features or principles in a new way to achieve a new result – often the essence of invention. Id." *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, Case No. 04-1493 (Fed. Cir. June 9, 2005), Slip Op. at 8.

The Office Action states that in Ohshima at column 10, lines 33-66, there is a "suggestion" that using a first plurality of optical network units, each optical network unit transmitting a first wavelength, and a second plurality of optical network units, each optical network unit transmitting a second wavelength different than the first wavelength, have the advantage of reducing the interference between the signals and providing the optical communication system with speed and high capacity. However, contrary to this assertion in the Office Action, column 10, lines 33-66 of Ohshima do not in fact mention any of these advantages.

Ohshima is based on an application filed on November 18, 1992 by an inventor in Japan which is long before (and far away) from Proctor who is an inventor in the United Kingdom that filed his application on July 5, 1995. Not only is there no actual "suggestion" by Ohshima, but it is not likely that one of ordinary skill in the art in 1992 would have "known" of Proctor's invention that did not come into existence three years later.

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b. There is no reasonable expectation of success

"Obvious to Try" a modification or combination of reference does not establish *prima facie* obviousness. Here, the Proctor invention deals with TDMA technology, whereas Ohshima involves multiplexing technology. Given the two different technical areas, there is no reasonable expectation that the two inventions could have been combined successfully.

Of course, in hindsight, with the knowledge that we have now in 2005, it might "appear to be obvious", but although the applications concern the same general subject matter, there is not even one common sub-class (either US or International) between Ohshima and Proctor. Thus, it would not have been obvious to combine one with the other. The claimed invention *sub judice* is, in fact, "new" and not obvious, and should now be allowed.

c. The combination of both Proctor and Ohshima do not teach or suggest all of the claim limitations:

Claims 1, etc. are directed to "a passive optical network in which multiple wavelengths are used to increase overall system bandwidth, with each wavelength being shared by multiple ONUs." (see page 2, line 12 of the current application). Ohshima discloses ONUs having two optical transmitters with distinct wavelengths (*i.e.*, wavelength division multiplexing); whereas Proctor discloses multiple ONUs with a single wavelength. Because, neither Proctor nor Ohshima disclose two or more wavelengths being shared by multiple ONUs there is no *prima facie* case of obviousness.

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Thus, claims 1, 8-11, 13, and 15-18 now should all be allowed.

Rejection of Dependent Claims 2, 3, and 7 under 35 U.S.C. § 103(a) over Proctor in view of Ohshima

The Office Action rejects dependent claims 2, 3 and 7 also based on the combination of Proctor and Ohshima. However, these rejections are respectfully traversed because claims 2, 3 and 7 are dependent upon independent claim 1, which is directed to the sharing of wavelengths by different optical networks. Because the combination of Proctor and Ohshima (please see the argument against the rejection of claims 1, 8-11, 13, 15-18, above) do not show the sharing of wavelengths by different optical networks, the rejection of dependent claims 2, 3, and 7 is not well taken, and should be withdrawn for the same reasons as above.

Rejection of Dependent Claim 12 under 35 U.S.C. § 103(a) over Proctor in view of Ohshima

Dependent claim 12 is dependent upon independent claim 11. Independent claim 11 is directed to optical networks sharing two wavelengths. The combination of Proctor and Ohshima does not disclose this sharing of wavelengths and therefore both independent claim 11 and dependent claim 12 should now be allowed.

Rejection of Dependent Claims 19 and 20 under 35 U.S.C. § 103(a) over Proctor in view of Ohshima

Claims 19 and 20 are dependent upon independent claim 13. Because the

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combination of Proctor and Ohshima does not disclose the sharing of wavelengths as claimed in independent claim 13, and, as show above, then dependent claims 19 and 20 should now be allowed.

Rejection of Dependent Claims 4 – 6 under 35 U.S.C. § 103(a) over Proctor in view of Ohshima and Panahi

Claims 5 and 6 are dependent upon claim 4. Claim 4 is itself dependent upon claim 2, which, in turn, is dependent upon claim 1. Because the combinations of Proctor, Ohshima and Panahi does not disclose the sharing of wavelengths as claimed in independent claim 1, then each of dependent claims 4 - 6 should now be allowed.

CONCLUSION

In view of the amendments and remarks made above, it is respectfully submitted that the pending claims are in condition for allowance, and such action is respectfully solicited. Should the Examiner not yet be persuaded, or perhaps be interested in first obtaining additional information, then Applicants respectfully request a telephone interview to discuss whatever additional questions or comments the Examiner may have.

Respectfully submitted,



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